Five-Year Review Report

Third Five-Year Review Report
for
Belvidere Municipal #1 Landfill Site
Belvidere, Illinois
Boone County

September 2005

PREPARED BY:

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Approved by: Date:

Richard C Karl — 9-19-05

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List of Acronyms

ARAR	Applicable or Relevant and Appropriate Requirement
ARC	Appleton Road Committee
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
BCCD	Boone County Conservation District
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
ICs	Institutional Controls
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
PAH	Polyaromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
POTW	Publicly Owned Treatment Works
PRP	Potentially Responsible Party
QAPP	Quality Assurance Project Plan
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SARA	Superfund Amendments and Reauthorization Act
SVOC	Semi-Volatile Organic Compound
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compound

Executive Summary

The remedy for the past five years for the Belvidere Municipal #1 Landfill Site (the Site) in Belvidere, Boone County, Illinois, included continued shutdown of the barrier extraction system in stand-by mode, operation and maintenance of the landfill cap, and sampling of the monitoring well network. The site achieved construction completion with the signing of the Close Out Report on June 10, 1992. The trigger for this Five-Year Review was the signature date (September 28, 2000) on the last Five-Year Review.

The assessment of this Five-Year Review found that the remedy was constructed in accordance with the requirements of the Record of Decision (ROD). The remedy is functioning as designed. The immediate threats have been addressed and because the remedial actions at the Belvidere Municipal #1Landfill Site are protective, the site is protective of human health and the environment.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: Belvidere Municipal #1 Landfill		
EPA ID *(from WasteLAN)*: ILD 980 497 663		
Region: 5	**State:** IL	**City/County:** Belvidere/Boone
SITE STATUS		
NPL status: ☒ Final ☐ Deleted ☐ Other (specify)		
Remediation status (choose all that apply): ☐ Under Construction ☐ Operating ☒ Complete		
Multiple Ous?* ☐ YES ☒ NO	**Construction completion date:** 5 / 29 / 1992	
Has site been put into reuse? ☐ YES ☒ NO		
REVIEW STATUS		
Lead agency: ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency		
Author name: Katherine Rodriguez		
Author title: Remedial Project Manager	**Author affiliation:** U.S. EPA, Region 5	
Review period:** 10 / 1 / 2004 to 9 /28 / 2005		
Date(s) of site inspection: 6 / 16 / 2005		
Type of review: ☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion)		
Review number: ☐ 1 (first) ☐ 2 (second) ☒ 3 (third) ☐ Other (specify)		
Triggering action: ☐ Actual RA On-site Construction at OU #___ ☐ Actual RA Start at OU# NA ☐ Construction Completion ☒ Previous Five-Year Review Report ☐ Other (specify)		
Triggering action date ***(from WasteLAN)***: 9 / 28 / 2000		
Due date ***(five years after triggering action date)***: 9 / 28 / 2005		

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form - cont.

Issues:

Woody species on northeast slope of landfill cap

Recommendations and Follow-up Actions:

Removal of woody species on northeast slope of landfill cap

Protectiveness Statement:

Because the remedial actions at the Belvidere Municipal #1 Landfill Site are protective, the site is protective of human health and the environment.

Long-term Protectiveness:

Monitoring of landfill gas vents and groundwater as well as maintenance of the RCRA Subtitle C landfill cap and the extraction system is on-going. Maintenance, monitoring, and institutional controls support long term remedial protectiveness.

Other Comments:

All current monitoring data indicate that the contamination remains contained within the landfill cap and on the deed restricted property.

Belvidere Municipal #1 Landfill Site
Belvidere, Boone County, Illinois
Third Five-Year Review Report

I. Introduction

The U.S. Environmental Protection Agency (U.S. EPA) has conducted a Five-Year Review at the Belvidere Municipal #1 Landfill Site (the Site), Belvidere, Illinois. The purpose of the Five-Year Review is to ensure that the remedial action implemented at the Site remains protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

U.S. EPA is preparing this Five-Year Review report pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA § 121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgement of the President that action is appropriate at such site in accordance with Section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The U.S. EPA interpreted this requirement further in the NCP; 40 CFR § 300.430(f)(4)(ii) states:

> If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

U.S. EPA conducted the Five-Year Review of the remedy implemented at the Site in Belvidere, Boone County, Illinois. This review was conducted by U.S. EPA's Remedial Project Manager (RPM) and reviewed by the Illinois Environmental Protection Agency (IEPA) Site Manager for the entire Site from October 2004 through September 2005. This report documents the results of the review.

This is the third Five-Year Review for the Site. The triggering action for this statutory review is the signature date of the second Five-Year Review on September 28, 2000. The Site's ROD was signed on June 29, 1988, which categorizes the Site as post-SARA; therefore, the first Five-Year Review was conducted as a matter of statute. The Five-Year Review is required due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure.

II. Site Chronology

Table 1 - Chronology of Site Events

Event	Date
City of Belvidere owned and operated the site as a municipal landfill	1939-65
City of Belvidere owned and a contractor operated the site as a municipal landfill, but also accepted industrial waste.	1965-73
Preliminary investigations and PRPs were sent information of the investigation	1982
Site proposed for NPL.	12.30.1982
Site became final on the NPL.	9.08.1983
Removal Action Initiated	9.8.1986
Notice letters sent to PRPs.	5.25.1988
Combined RI/FS and ROD completed for source control, extraction system, cap and security fence around the landfill site	6.29.1988
RD/RA Negotiations begin	5.25.1988
Consent Decree	12.02.1988
PRP RD completed	3.28.1990
RA started	3.28.1990
Extraction system started	11.29.1991
RA completed	5.29.1992
O&M started	5.29.1992
Close out report completed	6.10.1992
Five Year Review completed	6.27.1995
Begin trial shut down of barrier extraction system at the Site	9.28.1995
Approval by Agencies for extension of two year trial shut down of barrier extraction system, conditionally.	3.28.1998
Second Five Year Review completed	9.28.2000
Current Five-Year Review	9.2005
Next Five-Year Review	9.2010

III. Background

Physical Characteristics

The Site (see Figure 1 and Figure 2) is located just outside the western city limits of Belvidere, Boone County, Illinois (population 20,820). The site is bordered by the Kishwaukee River to the west, Spencer Park to the south, by a gravel pit to the north, and by Appleton Road (a residential neighborhood) to the east.

The southern and western edges of the site are located within the 100-year flood plain of the Kishwaukee River. Located within the Site boundaries to the east of the former landfill are two ponds and the former drum disposal area immediately northwest of the landfill. The ponds are abandoned gravel pits which have been filled by groundwater with additional contribution of surface water runoff from the landfill.

During the Remedial Investigation (RI), U.S. EPA installed 26 groundwater monitoring wells at the site. These wells can be broken down into: three wells representing background; seven wells which were installed through the landfill to determine the composition of leachate; fifteen wells which were installed to determine the composition of groundwater down-gradient from the landfill; and one well which was installed to collect groundwater from the deep bedrock aquifer. Samples taken from these wells during drilling indicated that groundwater in the site area occurs in two distinct aquifers; an upper aquifer and a lower bedrock aquifer. Despite this distinction, there is a direct connection between water in the upper aquifer and water in the lower bedrock aquifer. The upper aquifer consists of approximately 100 feet of sand and gravel, which is referred to as the Mackinaw Member of the Henry Formation. The average groundwater flow rate for the upper aquifer was found to be 254 ft/yr. The lower bedrock aquifer is represented by the Galena Dolomite, which has an estimated groundwater flow rate of 9.38 ft/yr.

In the upper portion of the sand and gravel aquifer beneath the site, groundwater appears to flow in a southwesterly direction toward the Kishwaukee River. Groundwater flow in the deeper sand and gravel and bedrock aquifers is also to the southwest. Vertical gradients between the deep and shallow wells are very slight; water levels vary by no more than few tenths of feet at the locations measured. These vertical gradients appear to be, at least in part, a function of the well's proximity to the river and seasonal fluctuations in the water table. This suggests that discharge from the deeper part of the sand and gravel aquifer to the river may occur during certain times of the year near the river. During the Remedial Design it was stated that contaminants entering the river or under flowing the river at depth is not a serious concern since the May 1989 sampling at wells MW-25 and MW-26 indicated no contamination. Elevation data from those wells as well as MW-24 show a small upward vertical gradient suggesting that transport of contaminants to depth is not likely.

The average precipitation in the Belvidere area of 35.62 inches per year eventually reaches surface water bodies via overland runoff or the groundwater via infiltration. Runoff from the landfill occurs radially down the slopes influencing the west pond and the river, as well as low areas adjacent to the landfill. Infiltration into the landfill is one of the primary sources of leachate generation and subsequent groundwater contamination at the site.

The landfill contains approximately 790,000 cubic yards of waste. The landfill occupies 19.3 acres of the 139-acre site and has a maximum thickness of 39 feet. It is estimated that the bottom 10% of the landfill is perennially saturated with groundwater.

Land and Resource Use

The Belvidere landfill was owned and operated by the City of Belvidere (the City) from 1939 to 1965 as a municipal landfill. The landfill operations disposed of waste in an old gravel pit from sand and gravel operations prior to 1939. From 1965 to 1973, the City retained ownership while private contractors operated the landfill. During this time period (1965-1973) industrial wastes were believed to be accepted at the landfill.

The landfill was formally closed in 1973 and covered with sandy soil excavated from an on-site borrow pit and soil remaining from highway construction just south of the facility. In 1976 the Boone County Conservation District (BCCD) purchased the Site as well as the surrounding area from the City in order to develop an experimental prairie and recreational area.

The BCCD property currently has available hiking and cross-country skiing trails on land surrounding the former landfill that is not affected by the landfill's previous operations. The BCCD maintains an access road that cuts through the former landfill but is prohibited for public use. Garden vegetables grow in plots near the BCCD headquarters building, located east of the Site and not within the remediated landfill boundaries. The ponds located northeast of the former landfill are used for fishing during the summer and winter months. No swimming is allowed on BCCD property and violators of this rule are removed from the site. The Kishwaukee River, located to the west of the landfill, is used in the summer months for recreational fishing and boating. Swimming in the river is not a frequent occurrence. Although deer frequent the Site, hunting is not permitted on the BCCD property.

The groundwater at and downgradient of the Site is not used as a drinking water source. The Restrictive Covenant Agreement recorded with the City prohibits activities that would compromise the integrity of the remedial actions which includes use of groundwater and a City Ordinance requires connection to public water supply and prohibits construction, alteration, rebuilding, or restoration of private wells within city limits.

History of Contamination

Business records for the site were virtually non-existent, however, information was gathered from CERCLA Section 104(e) letters to determine the Potentially Responsible Parties (PRPs).

In late 1970 when the landfill was operated by private contractors, the City applied for a solid waste disposal permit. The application stated that the waste to be deposited at the landfill consisted of approximately 52 tons per day of domestic garbage, landscape wastes, partially dewatered sludge and demolition material. However in 1971, the operator disclosed that up to 100 tons of waste were being deposited daily. This waste consisted of 35 tons of residential waste, 30 tons from industrial sources and 35 tons from commercial sources. Inspection reports by IEPA personnel indicate that special wastes, some of which are currently classified by U.S.EPA as hazardous, were disposed of in the landfill from late 1970 to early 1973. IEPA denied the City's permit application on January 19, 1971 and the landfill was formally closed in 1973.

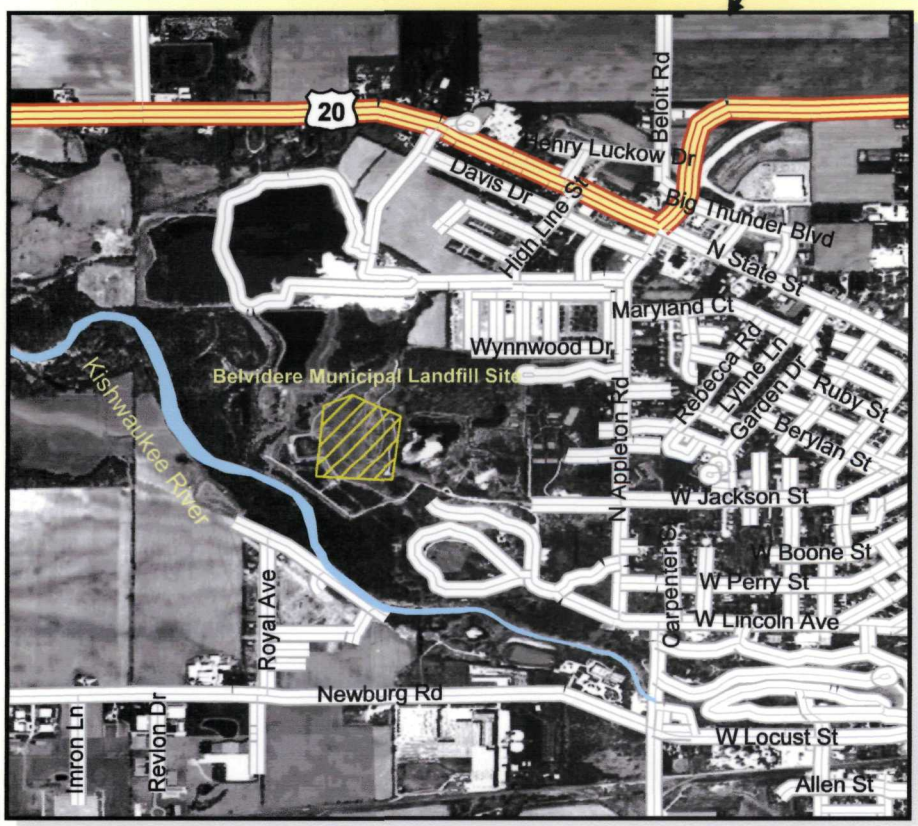
The cover applied during daily operations and the final cover applied in conjunction with the closing of the landfill did not satisfy regulatory requirements. In the summer of 1979, additional on-site materials were applied as a final cover. The cover consisted of sand and gravel and was vegetated with native prairie plants. The results of a 1981 site hydrogeologic investigation by IEPA, found that the final cover remained inadequate in some areas and that leachate poses a threat to surface and ground water.

Belvidere Municipal Landfill, Superfund Site, Illinois

1) State

2) Boone County, IL

3) Belvidere Municipal Landfill Site



GEOS
Groundwater Evaluation and Optimization System

Plot created by: Naseer Sheikh
U.S. EPA Region 5 on 7/15/2005

Figure 1

Belvidere Municipal Landfill, Illinois Superfund Site
3D Surface Terrain Model

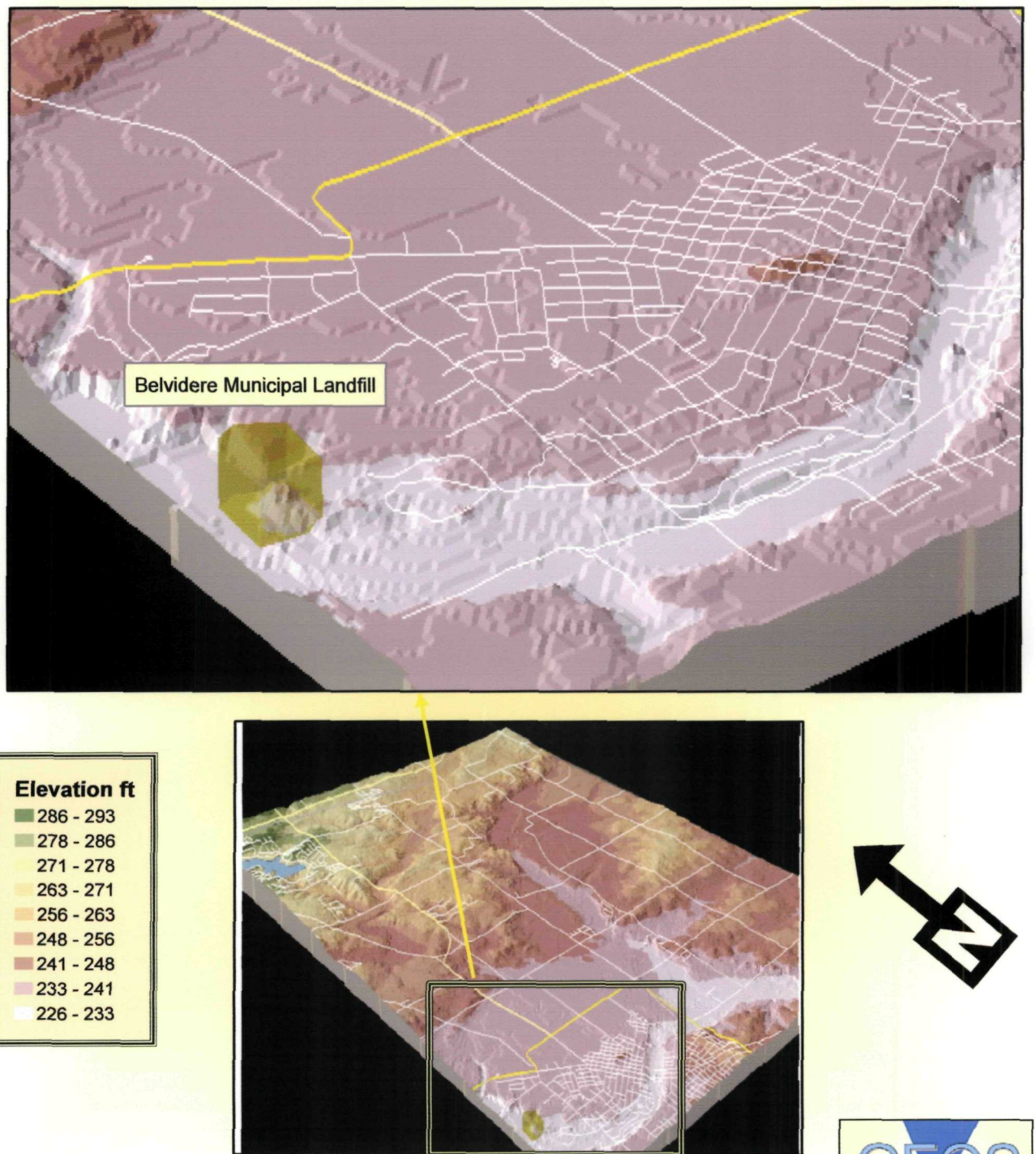


Figure 2

Map created by: Naseer Shafique
U.S. EPA Region 5 on 7/20/2005

Preliminary site investigations found that the drum disposal area was contaminated with PCBs. The groundwater was contaminated in the major zone with VOCs, PAHs, PCBs and metals. The groundwater was contaminated in the minor zone with vinyl chloride.

Initial Response

In December, 1982, the site was placed on the U.S. EPA NPL of abandoned or uncontrolled hazardous waste sites eligible for investigation and cleanup under the Superfund Program.

A Remedial Investigation/Feasibility Study (RI/FS), was conducted by Roy F. Weston Inc. for IEPA in cooperation with U.S. EPA. The RI/FS was initiated in August 1985 and completed in June 1988. The RI included a limited soil gas survey, installation of groundwater monitoring wells, collection and analysis of groundwater, leachate, river water, pond water and soil samples, and completion of a site hydrogeologic investigation. A drum disposal area was discovered during the RI and a Removal Action was completed between September and December 1986. The Removal Action included removal and proper disposal of; over 40 cubic yards of PCB contaminated soils and 41 55-gallon drums containing contaminated liquids and sludges from the west side of the site.

On the basis of the RI/FS and comments received from a PRP group, known as the Appleton Road Committee (ARC), and the general public, a ROD was prepared and signed on June 29, 1988, by U.S. EPA.

Basis for Taking Action

Contaminants

The RI indicated these significant contaminants:

Groundwater
Acenaphthene
Benzene
Cadmium
Chromium
Cyanide
Dibenzofuran
Diethylphthalate
2,4-Dimethylphenol
Ethylbenzene
Manganese
Naphthalen
PAHs
Pesticides
  alpha-BHC
  gamma-BHC
PCBs
  Aroclor-1254
Toluene
Xylene (total)

Landfill Soil
Cadmium
Cyanide
Ethylbenzene
Lead
Manganese
PAHs
PCBs
  Aroclor-1242
  Aroclor-1254
  Aroclor-1260
Silver
Xylene (total)
Zinc

Drum Disposal Soil
Butylbenzylphthalate
Cadmium
Chloroform
PCBs
  Aroclor-1254
bis (2-ethyl hexyl) Phthalate
Silver
Tetrachloroethene
1,1,1-Trichloroethane
Zinc

A Public Health and Environmental Risk Assessment was conducted to assess the potential exposure to human population, the environmental fate of the contaminants and their potential exposure

pathways. The four determined exposure pathways; groundwater, soil contact, soil ingestion and fish consumption create varying levels of noncarcinogenic and carcinogenic risk, depending on usage and magnitude of contamination. An analysis of fish tissue data revealed only the sporadic occurrence of chemicals, which although detectable, were in concentrations too low for valid quantification. Of all the compounds detected at the site, eleven indicator chemicals were identified as the compounds which best represented the overall risk to public health. As indicated in the ROD, the seven organic compounds and four inorganic compounds (metals) are listed below.

Metals	Organic Compounds	
Cadmium	Dimethylphenol	PCBs
Iron	bis(2-ethylhexyl)phthalate	Xylene
Lead	PAH (noncarcinogenic compounds)	Chloroform
Silver	PAH (carcinogenic compounds)	

IV. Remedial Actions

Remedy Selection

The ROD for the Site was signed June 29, 1988. The ROD identified four main remedial action objectives (RAO): 1) minimize risk to public health and environment from direct contact with contaminated material, 2) control the migration of contaminated material to surface waters, 3) control migration of leachate to groundwater via infiltration and 4) minimize potential risk to public health from future consumption of contaminated groundwater.

IEPA concurred with the selected remedy below as discussed in the ROD:

- Installation of RCRA Subtitle C cap meeting RCRA Subtitle C landfill closure requirements will eliminate direct human contact and reduce infiltration and prevent migration of contaminated materials to the Kishwaukee River and ponds;

- Soil remediation in the drum disposal area, adjacent to the northwest edge of the landfill will also eliminate direct human contact and reduce infiltration and prevent migration of contaminated materials to the Kishwaukee River and ponds. Soils found to be contaminated with greater than 50 ppm of PCBs will be taken to an off-site incinerator, the remaining soil will be capped. Soils found to be contaminated with less than 50 ppm of PCBs, will be consolidated with landfill material prior to capping;

- Groundwater extraction and treatment through a plume barrier system of wells located down-gradient of the landfill, intercepting contaminated groundwater before it reached the Kishwaukee River. Treatment of the groundwater will occur on site prior to discharging to the Kishwaukee River or at the Belvidere Publicly Owned Treatment Works (POTW) prior to discharge;

- Monitoring groundwater and fish contamination. Groundwater monitoring is necessary to track the movement of the contamination and measure the effectiveness of remedial measures.

Sampling and analysis of fish will determine the health risks of fish consumption;

- Access restrictions consisting of erecting a fence and implementing deed restrictions to control unacceptable on-site construction and activities, as well as assuring that groundwater on site will not be consumed; and

- Flood protection control measures to prevent erosion of the cap material and landfill contents.

The ROD states that the groundwater extraction and treatment system will operate until groundwater contamination levels of indicator chemicals no longer exceeds a 10^{-6} cumulative life-time cancer risk at the point of compliance. According to the ROD, the landfill boundary was considered the point of compliance for groundwater.

The ROD also states that the groundwater and surface water monitoring will be analyzed for a list of parameters that will be determined during the design phase.

Remedy Implementation

The Remedial Design (RD) began on December 5, 1988 and was completed on March 28, 1990. The Remedial Action (RA) began immediately and was completed May 29, 1992. The RA was governed by the Statement of Work (SOW) approved by the U.S. EPA as part of the December 1988 Consent Decree (CD) with the City of Belvidere, et al. The SOW required implementation of the following activities which were officially deemed construction complete and in compliance with the RD plans, specifications, and the requirements of the ROD by a letter dated January 6, 1992.

Installation of a site security fence around the landfill area: A security fence was constructed around the Site between June 12, 1990 and August 13, 1990. After construction had started, Golder Associates Inc. (Golder), on behalf of the City determined that the fence alignment along the east retention berm catchment area was incorrect. This was corrected. Approximately 7,362 linear feet of chain link fence were installed at the Site.

Application of Deed Restrictions: The deed restrictions required by the CD and SOW have been incorporated into the property deed (Attachment A). A Restrictive Covenant Agreement was made in June 1990 by and between the BCCD and the members of the ARC for the benefit of the parties and the third party beneficiaries: the residents of Boone County, the residents of the City, the IEPA and the U.S. EPA to insure the integrity of the remedial action. As stated within the agreement, "Third Party Beneficiaries, either jointly or severally, may enforce this agreement and the restrictions contained herein in any manner permitted in law or equity." This agreement was filed with the County Recorder of Deeds on February 25, 1991, "runs with the land," and ensures the integrity of the remedial action by, among other activities, prohibiting groundwater use and construction activities on the clay cap. It shall be noted that the BCCD maintains ownership of the Site. In addition, Belvidere City Ordinance Code, Section 114-160 (Attachment B) prohibits the construction, alteration, rebuilding, or restoration of private wells within city limits. The Site and the land downgradient of the former landfill are within the Belvidere City limits.

Resampling and remediation of soils in the drum disposal area: U.S. EPA required resampling of surface soils in the former drum disposal area to confirm PCB concentrations. Soils containing more than 10 ppm, but less than 50 ppm, of PCBs were to be consolidated within the landfill prior to cap construction.

- Soil samples were collected from within the former drum disposal area during the Remedial Design phase on May 14, 1989. Laboratory analyses indicated that PCB concentrations in the drum disposal area were less than 50 ppm with only one sample containing more than 10 ppm. Remediation involved excavating contaminated soil approximately 1 foot thick from within the limits of the former drum disposal area in accordance with the Remedial Design Plans and Specifications. Excavation occurred October 4th and 9th , 1990. As a contingency, additional excavation was conducted along the southeast margin of the area because drum lids were observed at the surface. Approximately 300 cubic yards of solid waste materials were excavated. The excavated soil was transported to the landfill where it was consolidated with the rest of the landfill material on the leveling layer at a location where the leveling layer was at least 1 foot thick. The soil was subsequently covered with an additional 2 feet of the leveling layer and the other components of the multilayer RCRA Subtitle C landfill cap.

- On October 9, 1990, verification samples of soils from the edges and center of the excavation in the former drum disposal area were collected and analyzed for PCBs. The data indicate that PCB concentrations in the remaining soils were below the 10 ppm cleanup level established by U.S. EPA. The former drum disposal area excavation was backfilled with random topsoil, regraded and revegetated.

Implementation of flood control measures: a flood protection berm was constructed beginning July 11, 1990 and completed December 1990 (95% complete as of November 1990 -info received from monthly reports) to a height of 750 feet mean sea level to protect the landfill from a 100 year flood event. A road was also constructed on top of the berm to provide access around the Site. Placement of random soil, select soil, select topsoil, aggregate and riprap was closely monitored, and field and laboratory soil testing were performed according to the frequencies specified in the Remedial Design Plans and Specifications. Field and laboratory soil testing data indicated that the flood protection berm was constructed in substantial accordance with the Remedial Design Plans and Specifications.

Construction, installation and maintenance of a plume barrier groundwater extraction and treatment/discharge system: A plume barrier groundwater extraction system was constructed downgradient of the landfill to intercept groundwater between the landfill and the Kishwaukee River. The system consists of a 1200 foot long linear array of forty (40) extraction wells positioned about 100 feet from the river, a single suction pumping system, and a force main connection to the City sanitary sewer system. The pumping system consists of a vacuum pump, a vertical turbine pump and ancillary controls. The Barrier Extraction System began operating on October 29,1991.

Section 5.5 of the Operation and Maintenance Plan (June 1992) indicates that the system would be shut off when all the target compound criteria listed in Attachment C are satisfied for three consecutive sampling events at compliance wells, MW-6 and MW-7. U.S. EPA responded to the City's, May 24, 1995, petition to shut off the groundwater extraction system and modify the long-term sampling program at the Site with approval on September 7, 1995. Even though the groundwater sampling results indicated that the Site did not meet the criterion for shutting off the barrier extraction system, U.S. EPA and IEPA agreed to a 2-year shut off of the extraction system in stand-by mode because: the groundwater contaminant concentrations were generally stable or declining; there is no usage of the water between the landfill and the Kishwaukee River; and the property between the landfill and the river belong to the BCCD, which precludes future use for drinking of the affected portion of the aquifer. The extraction system was shut off in stand-by mode on September 28, 1995. In a March 28, 1998 letter, IEPA and U.S. EPA approved the City's request for continued shut off in stand-by mode with the condition that the City

insure that groundwater use is prohibited and the Kishwaukee River is adequately protected. This would be accomplished by verifying; institutional controls, the potential for natural attenuation/intrinsic remediation to mitigate contaminants of concern, and adequate monitoring of the groundwater. These actions have been completed and the extraction system continues to remain shut off in stand-by mode.

Construction and maintenance of a RCRA Subtitle C Compliant landfill cap: a multilayer soil cap in substantial compliance with RCRA Subtitle C landfill closure requirements was designed and constructed June 1990 and November 1991. The multilayer cap provides a minimum of 6 foot thick cover that includes; a leveling layer, low permeability layer, drainage layer, vegetative cover, and a gas venting system.

Groundwater, Surface Water, Biota and Air Monitoring:

- A long term groundwater monitoring program was designed to provide data to track the location of contaminated groundwater and to assess the effectiveness of the remedial measures. Pipeline effluent was monitored when the extraction system was operational. The groundwater monitoring network initially consisted of 16 groundwater monitoring wells which were sampled at specified intervals throughout the Post Closure Period. The current monitoring network includes sampling of 10 wells, annually.

  The Final Remedial Design, determined that the groundwater monitor wells as well as the extraction system would be analyzed for only the following indicator chemicals:

Arsenic	PCBs
Benzene	Toluene
Ethylbenzene	Vinyl chloride
2,4 Dimethylphenol	Xylenes (total)
Naphthalene	

  This decision to change target compounds was based on information gathered from a May 23, 1989 downgradient groundwater sampling event. Although both PCBs and Vinyl chloride were not detected in that round of sampling, they remained sampling targets for the first year of O&M. Since levels declined below detection limits at; downgradient wells, the West Pond and the discharge from the barrier extraction system, monitoring for those parameters did cease.

  Because the calculated maximum concentrations that produce an excess cancer risk of 10-6 were below detection limits for the current analytical methods for testing water samples, they could not serve as practical criteria for determining an appropriate time for discontinuing the barrier extraction system. Alternate criteria (Attachment C) was approved for this final list of target compounds which consisted of Safe Drinking Water Act MCLs, proposed MCLs, or method detection limits (when MCLs had not been proposed) in June 1992 Operation and Maintenance for Remedial Action.

  Groundwater monitoring has provided data that shows contamination is being contained within the Site boundaries and that in downgradient wells, concentrations have been generally decreasing, mostly to nondetects. Well MW-X5, located within the landfill and near the BTEX source area, maintains the highest contaminant concentrations.

- Surface water was monitored in the West Pond. This sampling was discontinued after continued

compliance was demonstrated.

- Fish sampling was conducted during the Remedial Design phase to evaluate possible site impacts on fish populations in the West and East Ponds and the Kishwaukee River.

  Fish were collected, filleted, and the flesh was analyzed for PCBs. PCB action levels were not exceeded; consequently, the agencies determined that a long term fish monitoring plan would not be required. In addition, the Illinois Department of Conservation conducted a site survey to verify the presence or absence of the Indiana Bat. None was found.

- Air quality was monitored at the discharge manhole for the pipeline during each barrier system effluent sampling event. The integrity of the gas control vents on the landfill cover and the gas monitoring probes around the perimeter of the landfill was evaluated during prefinal inspections. The vents and probes were inspected for physical damage and evidence of disturbance. None was observed. Routine air monitoring has been conducted.

System Operations/Operation and Maintenance (O&M)

The City is conducting O&M of the Final Cover System and the Barrier Extraction System according to the June 1992 O&M Plan and subsequent modifications to that plan. Reporting on a tri annual (2000-2002) and annual (2003-2005) basis the treatment system monitoring and O&M activities.

The primary activities associated with O&M for the final cover system:

- Routine Maintenance: Mowing (biannually), tree and shrub removal, rodent control and removal,
- Landfill Closure Inspection: Security, access, vegetation, drainage and erosion control, settlement, gas control and survey benchmarks
- Gas Probe/Vent Integrity
- Air Monitoring: Gas probes, perimeter air, and (manhole discharge is discontinued)

The primary activities associated with O&M of the Barrier Extraction System:

- Barrier Extraction System Inspection: Security, access pumps and pumphouse, and pipeline. Pumphouse meter reading and oil level check (monthly)
- Monitoring/Performance Evaluation Well Integrity
- Groundwater monitoring
- Discontinued activities
  - Pipeline Pressure Testing
  - Barrier Extraction System Performance Tuning
  - Barrier Extraction System Testing

Table 2 - Annual System Operations/O&M Costs

Dates		Total Maintenance Cost (Excludes Operations and Monitoring)
From	To	
8.2000	7.2001	$306
8.2001	7.2002	$387
8.2002	7.2003	$406
8.2003	7.2004	$511

V. Progress Since the Last Five-Year Review

The first Five-Year Review report dated June 27, 1995 provided that "the only PCB containing material that was allowed to remain on site was soil with concentrations less than 50 ppm. Therefore, TSCA requirements were achieved. Soils below this concentration were consolidated under the landfill cap. Based on a history of non-detects during post-RA monitoring of groundwater, PCBs were dropped from the analytical parameter list." Although not mentioned in the 1995 Five-Year Review, Vinyl Chloride was also removed from the parameter list prior to May 1995.

According to a U.S. EPA letter dated September 7, 1995, the City was given approval to delete SVOCs and Arsenic from the analytical parameter list. The SVOCs had not been detected in well MW-7 in any quarterly sampling events and arsenic had not been detected at levels of concern at MW-7 or MW-X3 .

The current analytical parameter list contains BTEX.

The protectiveness statement from the last Five-Year Review, dated September 28, 2000, stated "the U.S. EPA finds that the selected remedy, as constructed and maintained, continues to be protective of human health and the environment and compliant with ARARS. The fence restricts ready access to the site, the cover prevents direct contact with waste material, and the barrier groundwater extraction system prevents contaminated groundwater from migration to the Kishwaukee River. Status of down-gradient land as a conservation district prevents development of groundwater for potable use."

Recommendations from last review include:

- Continue current shut-down configuration of the extraction system.
  Action Taken: The City presented a Natural Attenuation Evaluation Report on July 2002 which concludes that organic constituents of concern (principally BTEX compounds) are being remediated in the groundwater through biologically mediated aerobic and anaerobic natural attenuation processes. The annual monitoring of the network has provided data that supports that the groundwater contaminant concentrations continue to be generally stable or declining. The extraction system is shut off in stand-by mode.

- Reduce monitoring frequency to semi-annual.
  Action Taken: Based on time estimations that indicated groundwater flow from the furthermost down-gradient contaminated well to the Kishwaukee River would be greater than a year, a

recommendation was made in the Trend Analysis and Natural Attenuation Report to reduce the sampling events to an annual event. As of July 2002 the monitoring frequency is annual per Golder's recommendation in the Natural Attenuation Report.

- Provide documentation that verifies deed restrictions or institutional controls (ICs) which prohibit groundwater use on land(s) downgradient of the site.
  Action Taken: The City provided the Restrictive Covenant Agreement (Attachment A) and the Belvidere City Ordinance Code, Section 114-160 (Attachment B) in a letter dated November 30, 2000. A complete copy of the Restrictive Covenant Agreement was provided at the site visit, June 16, 2005. The Restrictive Covenant Agreement was entered in June 1990 and recorded on February 25, 1991. The City Ordinance remains was passed in 1997 and remains unchanged. It shall also be noted that the BCCD maintains ownership of the Site and that the Site and the area downgradient of the former landfill is within Belvidere City limits.

- Provide a copy of procedures used to maintain the groundwater extraction system when it is in standby mode.
  Action Taken: The City provided a copy of the relevant sections of the April 1992 O&M plan in a letter dated November 17, 2000. The City has been following the "long term" operation and maintenance period guidelines from the O&M Plan.

- Conduct a Natural Attenuation Study and a trend analysis of the groundwater contaminants, including 1 and 2 dimensional solute transport models and site groundwater bio-geochemical conceptual model.
  Action Taken: Golder, on behalf of the City, completed and submitted the document containing the Natural Attenuation Study and a Groundwater Contaminant Trend Analysis July 2002 and included potentiometric maps from all previous monitoring events (November 2000-March 2002).

Issues from last review include:

- Request for deletion of monitoring wells MW-3, MW-X3, MW-20, MW-25, and MW-X2 from the sampling network in a 1997 letter from the City.
  Action Taken: The City plugged and abandoned MW-20 and MW-X2 in accordance with State of Illinois standards for well decommissioning on December 8, 2000. At least one up-gradient well must remain in the monitoring program. MW-2 is an up-gradient shallow well, MW-20 a deep up-gradient well was deleted. MW-X2 was deleted because it was across-gradient from the former landfill and did not show contamination. MW-X3 remains because it defines the lateral extent of the plume. MW-3 provides a sampling point adjacent to the river down-gradient from MW-X3. MW-25 was required to be redeveloped to insure that it was adequately monitoring the groundwater in the deep aquifer.

- IEPA requires a minimum of three downgradient monitoring well locations, two thirds in the shallow aquifer and one third in the deep.
  Action Taken: In a letter dated November 17, 2000 the City provided well development field records for MW-23, MW-24, MW-25, MW-26, and MW-3. These wells were included in the sampling schedule as of November 7, 2000. MW-24, MW-25, and MW-26 is a cluster location with a shallow well, a deep well and a bedrock well respectively. Both MW-23 and MW-3 are shallow wells.

- The City needs to submit deed restrictions and natural attenuation data as a step toward the NPL deletion process.
  Action Taken: In November 2000 the City submitted a copy of the Restrictive Covenant Agreement recorded February 25, 1991 and the Belvidere City Ordinance Code, Section 114-160 (Attachment B). A complete copy of the Restrictive Covenant Agreement was provided at the site visit, June 16, 2005 (Attachment A). The City submitted Groundwater Contaminant Trend Analysis and Natural Attenuation Evaluation Report dated July 2002. The report presented an assessment of the performance of natural attenuation since 1995, based upon studies conducted by and on behalf of the City. Based on the results of the analysis, the report concluded that constituents of concern (principally BTEX compounds) are being remediated in the groundwater through biologically mediated aerobic and anaerobic natural attenuation processes. According to Golder (2002), the studies have shown that:

  • Organic contaminant sources leaching from the landfill have remained steady to slightly decayed over the years without any indication of increased source loading;

  • Concentrations in down-gradient wells have been non-detect or have continued to decline in concentration over the last 7-year period (during the groundwater extraction system shut-down). In no case have concentrations in any observation well increased in the last 7 years;

  • The total mass of benzene in the plume has reduced over time, as evidenced by the comparison of 1996 and 2002 plume delineations;

  • The distribution of geochemical parameter (consumption of dissolved oxygen, nitrate and sulfate, production of ferrous iron and alkalinity) clearly indicate that various anaerobic and aerobic biodegradation processes are occurring that naturally attenuate organic constituents of concern down-gradient of the landfill Site;

  • The relationships between dissolved oxygen and sulfate consumption and BTEX reduction, substantiates that both oxygen and sulfate are being used as the predominant electron acceptor promoting the biodegradation of organic contaminants;

  • Results of modeling efforts using 1-dimensional and 2-dimensional analytical simulations confirm that the plume history and current configuration are consistent with the ongoing occurrence of natural attenuation and biodegradation mechanisms with a half-life of benzene degradation of about 900 days;

  • The processes of natural attenuation, in conjunction with existing remedial measures of monitoring and institutional controls are protective of human health and the environment; and

  • The organic plume configuration is stable or declining and is not expected to affect any receptors outside the area where public water is available.

  This same document recommends:

  • Groundwater monitoring should be reduced from triannual sampling events to an annual event.
  • The groundwater extraction system should be decommissioned.

• Monitoring wells no longer used as part of the long term groundwater monitoring network should be sealed and decommissioned.
• The long term groundwater monitoring well network should include the ten wells sampled since November 2000.
• Geochemical parameters should continue to be measured in Site wells during future sampling events to monitor natural attenuation conditions of the plume and groundwater system.

The current groundwater monitoring network consists of wells MW-2, MW-3, MW-6, MW-7, MW-23, MW-24, MW-25, MW-26, MW-X3 and MW-X5 (see Figure 3). The parameters that are sampled for include Benzene, Toluene, Ethylbenzene and Xylenes (total) in addition to the geochemical parameters. The sampling is performed annually.

VI. Five-Year Review Process

Administrative Components

The Belvidere Municipal #1 Landfill Five-Year Review Team was led by Katherine Rodriguez, Remedial Project Manager (RPM) for the U.S. EPA and included Rick Lanham of IEPA and John Tielsch, U.S. EPA attorney. The City of Belvidere, the PRP who is responsible for operation and maintenance of the site, was notified of the upcoming Five-Year Review in August 2004.

From October 1, 2004 to June 30, 2005, the lead agency completed the following activities:

- Community Involvement
- Document Review
- Data Review
- Site Inspection
- Five-Year Review Report Development and Review.

From July 18 to August 31, 2005, U.S. EPA and IEPA reviewed the draft report and submitted comments. The comments were addressed immediately following, and a revised report was reviewed and signed by the director of the Superfund Division.

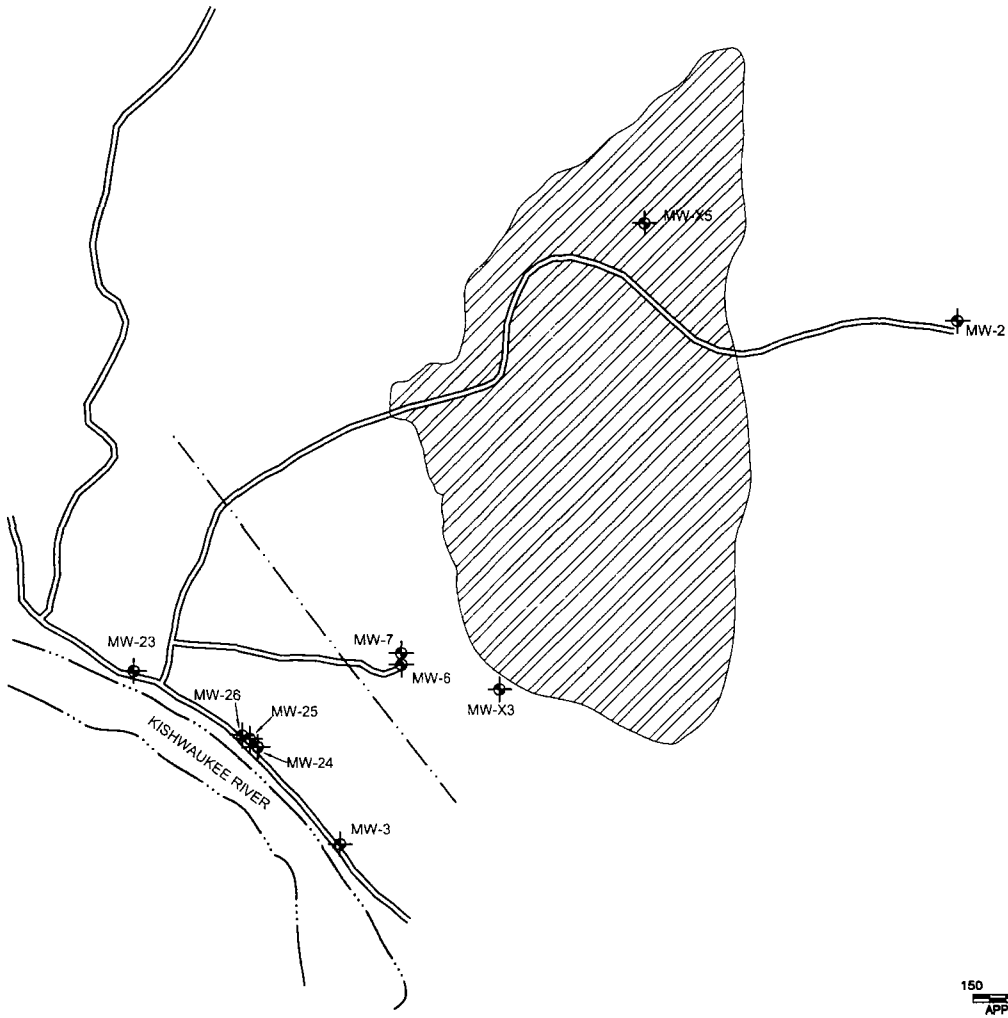
Community Involvement

Activities to involve the community in the five-year review process were initiated in October 2004 with a notification to the Community Involvement Coordinator (CIC) for the Site. A notice was published on October 26, 2004 in the local newspaper (Rockford Register Star Newspaper) that a five-year review was to be conducted (Attachment D). None of the residents expressed any concerns over the protectiveness of the remedy. In addition, a site visit was conducted in June by IEPA and U.S. EPA.

On approximately September 30, 2005, results of the review and the report were made available to the public at the Ida Public Library.

Document Review

This five-year review consisted of a review of relevant documents including the ROD, SOW,



LEGEND

- APPROXIMATE LANDFILL AREA
- MW-2 — MONITORING WELL LOCATION
- SERVICE ROAD
- APPROXIMATE LOCATION OF GROUNDWATER EXTRACTION SYSTEM BARRIER WELLS

150 0 150 300
APPROXIMATE SCALE IN FEET

Golder Associates
St. Louis, Missouri

FILE No.	983-2402.001
PROJECT No.	983-2402 REV. 0
SCALE	AS SHOWN
DATE	JUNE 2002
DESIGN	XXX
CADD	MSL
CHECK	MNH
REVIEW	

TITLE: **SITE PLAN AND MONITORING WELL LOCATIONS**

PROJECT: MUNICIPAL LANDFILL NO. 1
CITY OF BELVIDERE
DEPARTMENT OF PUBLIC WORKS
Belvidere, Illinois

FIGURE: 3

O&M records, and monitoring data (see Attachment E). Applicable cleanup standards/goals, as listed in the 1988 ROD, were also reviewed (see Attachment F).

Data Review

The groundwater data results are presented, below, since the last Five-Year Review. Shading indicates parameters above MCLs; 5 µg/L Benzene, 700 µg/L Ethylbenzene, 1000 µg/L Toluene, 10,000 µg/L Xylenes.

Table 3 - Trend Analysis Data

Well MW-2	Trend Analysis							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Well MW-3	Trend Analysis							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Well MW-6	Trend Analysis							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Well MW-7	Trend Analysis							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**

Benzene	4.8	5.9	4.6	2.0	3.4	5.0	<1.0	<1.0
Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	30.4	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	20	<3.0	<3.0	36.8	4.8	22.0

Well MW-23	**Trend Analysis**							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Well MW-24	**Trend Analysis**							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Well MW-25	**Trend Analysis**							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Well MW-26	**Trend Analysis**							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Ethyl Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Well MW-X3	**Trend Analysis**							
Parameter (µg/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	6.9	1.4	5.8	4.6	5.4	6.5	3.7	3.5
Ethyl Benzene	16	27	<1.0	52	99.2	24.6	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	700	140	190	72	137	285	<3.0	<1.0

Well MW-X5	**Trend Analysis**							
Parameter (ug/l)	**Nov 00**	**Mar 01**	**Jul 01**	**Nov 01**	**Mar 02**	**Jul 02**	**Jul 03**	**Jul 04**
Benzene	15	<20	<100	38	29.2	26.0	36	539
Ethyl Benzene	730	12,000	11,000	18,000	17,400	7,630	15,800	7,860
Toluene	2,200	2,700	4,700	7,400	7,640	1,570	6,970	589
Xylenes, Total	21,000	36,000	28,000	47,000	45,600	19,100	41,600	19,400

Monitoring data for the last five years has been reviewed. Sampling was conducted to monitor the concentrations of BTEX compounds in 10 monitoring wells. The data shows that the contamination is being contained within the landfill boundaries, and that in downgradient wells, concentrations have been generally decreasing, mostly to nondetects. Compliance well MW-7 showed Benzene contamination slightly above the 5 µg/L MCL in March 2001, but in the last two sampling events there have been non-detects. MW-X3, a downgradient lateral well adjacent to compliance well MW-7, has had Benzene levels fluctuating slightly above the 5 µg/L MCL, but in the last two sampling events the concentrations have remained below 5 µg/L. MW-X5 is believed to be located close to the BTEX source area within the landfill and has historically had the highest concentrations of contamination.

In addition to sampling for contaminants, samples were tested for additional parameters. The field parameters included: Ferrous Iron, oxidation reduction potential (ORP), turbidity, dissolved oxygen, pH, conductance and temperature. Geochemical Natural Attenuation Parameters sampled were alkalinity, Biochemical Oxygen Demand (BOD), Chloride, Nitrate, Sulfate, Sulfide and Total Organic Carbon (TOC).

Site Inspection

An inspection at the Site was conducted on June 16, 2005, by representatives from U.S. EPA, IEPA

and the City. The purpose of the inspection was to assess the protectiveness of the remedy, including the presence of fencing to restrict access, the integrity of the cover, and the condition of the dormant extraction system.

No significant issues have been identified regarding the cap, the fence, or the extraction system. Examination of the deeply rooted grass cover revealed that there has been no subsidence or movement in the area and remains stable. Some woody species was noted as growing on the northeast slope near the west pond. The fence remains intact and restricts access to the public with clearly marked signs posted on the outer edges. The City did note that although there has been evidence of animals burrowing in the landfill cap and kids as well as deer jumping the fence in the past, these activities have not occurred in quite a while. All monitoring wells, gas monitoring probes and gas vents were properly secured/locked and appeared to be in good condition. The City demonstrated the stand-by mode operation of the extraction system. The wetlands created in the borrow area are highly vegetated and maintain a constant bird population.

The ICs that are in place include prohibitions on actions that would compromise the integrity of the remedial action. No activities were observed that would have violated the ICs; the cap and the surrounding area were undisturbed, and no new uses of groundwater were observed.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

A review of the relevant documents and the results of the site inspection indicate that the remedy is functioning as intended by the ROD as a source-control remedy. Soil excavation consolidated contaminated materials with landfill material prior to capping. The capping of contaminated soils has achieved the remedial objective to minimize the migration of contaminants to groundwater and surface water as well as preventing direct contact with, and ingestion of contaminated material. Access Controls and ICs prevent exposure to, or ingestion of contaminated materials. The extraction system ensured no further degradation of the aquifer downgradient from the landfill and groundwater protection of the Kishwaukee River. Groundwater monitoring confirms that contamination is effectively contained within the landfill boundaries.

Operation and maintenance will ensure the effectiveness of response actions. Operation and maintenance of the cap continues to be effective, no current indications exist that show diminishing integrity of the RCRA Subtitle C landfill cap. The groundwater extraction system is also maintained in stand-by mode if it is required to be reactivated.

The ICs that are in place include prohibitions on the use or disturbance of groundwater, excavation activities, disturbance of the cap, and any other activities or actions that might interfere with the implemented remedy. No activities were observed that would have violated the ICs. The cap and the surrounding area were undisturbed, and no new uses of groundwater were observed at the Site. The fence around the site is intact and in good repair.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

There have been no changes in the physical conditions of the Site that would affect the protectiveness

of the remedy.

Changes in Standards and To be Considered (TBC)

A list of the primary Applicable or Relevant and Appropriate Requirements (ARARs) are included in Attachment F. There have been no changes in these ARARs that affect the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

There have been no changes in the exposure assumptions that were used in the risk assessment that would affect the protectiveness of the remedy. U.S. EPA considers the assumptions in the baseline risk assessment to be conservative and reasonable in evaluating risk-based cleanup levels. No change to these assumptions or to the cleanup levels developed from them is warranted. There has been no change in the standardized risk assessment methodology that would affect the protectiveness of the remedy. Because the remedy implemented engineering controls and ICs to prevent contact with contaminants that remain at the Site, changes in contaminant toxicity would not impact the effectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

There is no other information that calls into question the protectiveness of the remedy.

Technical Assessment Summary

According to the relevant documents, data reviewed, and the site inspection, the remedy is functioning as intended by the ROD as a source-control remedy. The RCRA Subtitle C landfill cap as well as access and institutional controls prevent dermal contact and ingestion of contaminated materials. Groundwater monitoring data verifies that contamination is contained, protecting both ground and surface waters. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

VIII. Issues

Table 4 - Issues

Issue	Currently Affects Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Evidence of woody species on northeast slope of landfill cap	N	Y

IX. Recommendations and Follow-Up Actions

Table 5 - Recommendations and Follow-Up Actions

Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
					Current	Future
Woody species on northeast slope of landfill cap	Mowing/Removal of woody species on northeast slope of landfill cap	PRPs	State/EPA	11/1/2005	N	Y

X. Protectiveness Statement

Because the remedial actions at the Belvidere Municipal #1 Landfill Site are protective, the site is protective of human health and the environment in the short term. The source-control remedy has progressed and the major remedial components described in the 1988 ROD have been completed and have eliminated exposure routes: source area excavation, application of deed restrictions, installation of security fencing, and construction of both the flood control berm and the RCRA Subtitle C landfill cap. The groundwater barrier extraction system and treatment at the POTW were discontinued in stand-by mode, however, the monitoring well network provides sufficient data to assess containment of groundwater contaminants, verifying the protection of the Kishwaukee River and the downgradient aquifer.

Long-term Protectiveness

Monitoring of landfill gas vents and groundwater as well as maintenance of the RCRA Subtitle C landfill cap and the extraction system is on-going. Maintenance, monitoring, and institutional controls support long term remedial protectiveness.

XI. Next Review

The Five-Year Review is required due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. The next Five-Year Review for the Site is required by September 28, 2010, five years from the date of this review.

ATTACHMENT A

Document No. 91-035 filed in Recorder's Office, Boone County, IL. on 6/25/91 at 2:3 o'clock P.M. Recorder of Deeds
Deputy

RESTRICTIVE COVENANT AGREEMENT

This Restrictive Covenant Agreement (the "Agreement") is made this ____ day of June, 1990, by and between the Boone County Conservation District ("BCCD") and the members of the Appleton Road Committee ("ARC") for the benefit of the parties hereto and the following third party beneficiaries: the residents of Boone County, Illinois, the residents of the City of Belvidere, Illinois, the Illinois Environmental Protection Agency ("IEPA"), and the United States Environmental Protection Agency ("U.S. EPA") (collectively referred to as "Third Party Beneficiaries").

W I T N E S S E T H:

WHEREAS, BCCD is the owner of the property legally described in Exhibit A attached hereto and made a part hereof ("Property"); and

WHEREAS, the Belvidere Municipal Landfill No. 1 Superfund Site (the "Landfill") is located on the Property; and

WHEREAS, pursuant to a Consent Decree in United States of America v. City of Belvidere, et. al., United States District Court for the Northern District of Illinois, Western Division, No. 89 C 20015, entered April 16, 1989 ("Consent Decree") by and among ARC, U.S. EPA and IEPA, ARC has agreed to implement a remedial action plan on the Property to clean up hazardous substances found on the Property; and

WHEREAS, ARC and BCCD desire to ensure the integrity of the remedial action plan by imposing certain restrictive covenants on the Property to prevent inappropriate actions or construction (i) which would compromise the integrity of any remedial action conducted on or around the Property pursuant to the Consent Decree; or (ii) which would be in violation of the requirements of 40 C.F.R. §265.117(c), as the same may be modified or amended from time to time.

NOW, THEREFORE, for and in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, BCCD for itself and its successors and assigns, do hereby covenant and agree as follows:

1. There shall be no construction, erection, placement, storage or use of any buildings, structures, wells, pipes, roads, ditches, fences, barriers or any other improvements, temporary or permanent, on that part of the Property which is to be remediated by installation of a clay cap and the groundwater monitoring and

RETURN TO:
JOHNSON, TOBIN & RAMON
2030 N. State
Belvidere, IL 61008
815/544-0316

Parcel

extraction system in accordance with the requirements of the Design Plans and Specifications and the Work Plan prepared pursuant to the Consent Decree, and more fully described in Exhibit B and Exhibit C attached hereto and made a part hereof ("Restricted Tract").

2. There shall be no dumping or storing of ashes, trash, garbage, equipment or materials of any kind on the Restricted Tract.

3. There shall be no filling, excavating, digging, dredging, mining, quarrying, drilling or removing or disturbing of topsoil, sand, gravel, rock, minerals, cover, plants or other materials on the Restricted Tract.

4. There shall be no use of the groundwater on the Restricted Tract.

5. The restrictive covenants created herein shall not apply to any remedial action conducted on or around the Property pursuant to the Consent Decree.

6. **THIS AGREEMENT, AND ALL THE RIGHTS, BENEFITS AND PRIVILEGES HEREIN CREATED AND ALL THE IMPOSITIONS AND OBLIGATIONS HEREIN IMPOSED OR ASSUMED SHALL BE DEEMED AND TAKEN TO BE COVENANTS RUNNING WITH THE LAND DESCRIBED IN EXHIBIT A ATTACHED HERETO AND SHALL EXTEND TO AND BE BINDING UPON AND/OR BURDEN ALL PERSONS NOW OR HEREAFTER OWNING OR CLAIMING AN INTEREST IN THE LAND DESCRIBED IN EXHIBIT A ATTACHED HERETO, THEIR SUCCESSORS, HEIRS AND ASSIGNS, FOR THE USES AND PURPOSES SET FORTH HEREIN.**

7. The parties hereto acknowledge and declare that it is their express intent that the covenants contained herein are for the benefit not only of the parties to this Agreement, but also for the benefit of the Third Party Beneficiaries, and that said Third Party Beneficiaries, either jointly or severally, may enforce this Agreement and the restrictions contained herein in any manner permitted in law or equity.

8. The undersigned person executing this Agreement on behalf of BCCD represents and certifies that (s)he is a duly authorized member of BCCD and has been fully empowered, by proper resolution and by compliance with any other applicable requirements of law, to execute and deliver this Agreement.

9. This Agreement shall be executed and recorded no later than _____, 1990.

10. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument. In addition, this Agreement may contain more than one counterpart of the signature

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Page

page and this Agreement may be executed by the affixing of the counterpart signature page(s) containing the signatures of each of the parties. All of such counterpart signature pages shall be read as though one, and they shall have the same force and effect as though all of the signers had signed a single signature page.

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Page 3

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first above written.

ATTEST:

By: _____

Its: _____

BOONE COUNTY CONSERVATION DISTRICT

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

APPLETON ROAD COMMITTEE

By: Belvidere Company, a _____ corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Browning Ferris Industries of Illinois, Inc., a _____ corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Camcar Division of Textron, a _____ corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Central Rubber Company, a _____ corporation

By: _____

Its: _____

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STATE OF ILLINOIS)
) SS:
COUNTY OF COOK)

I, Carol A. Nalepa, a Notary Public in and for said County in the State aforesaid, do hereby certify that Alan Reed, Executive Vice President of Central Rubber Company, an Illinois corporation, and Robert J. Tortorello, Secretary of Central Rubber Company, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Executive Vice President and Secretary, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their free and voluntary act and the free and voluntary act of Central Rubber Company, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, this 13th day of December, 1990.

Notary Public

Commission Expires: 3-3-94

"OFFICIAL SEAL"
CAROL A. NALEPA
Notary Public, State of Illinois
My Commission Expires Mar. 3, 1994

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IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first above written.

ATTEST:

By: _____

Its: _____

BOONE COUNTY CONSERVATION DISTRICT

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

APPLETON ROAD COMMITTEE

By: Belvidere Company, a Delaware corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Browning Ferris Industries of Illinois, Inc., a _____ corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Camcar Division of Textron, a _____ corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Central Rubber Company, a _____ corporation

By: _____

Its: _____

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STATE OF ILLINOIS)
) SS:
COUNTY OF [illegible])

I, [illegible], a Notary Public in and for said County in the State aforesaid, do hereby certify that Martin H. Holmes, President of the Belvidere Company, a Delaware corporation, and D. L. Ivler, Vice President of the Belvidere Company, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such [illegible] and Vice President, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their free and voluntary act and the free and voluntary act of the Belvidere Company, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, this 10th day of May, 1990.

OFFICIAL SEAL
DAVID C LEEZER
NOTARY PUBLIC STATE OF ILLINOIS
MY COMMISSION EXP MAY 3,1992

Notary Public

Commission Expires: May 3, 1992

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ATTEST:

By: _____

Its: _____

By: Chrysler Corporation, Delaware Corporation

By: _____

Its: _____

ATTEST:

By: Noelle T. Cunningham

Its: City Clerk

By: The City of Belvidere, a municipal corporation

By: [signature]

Its: Mayor

ATTEST:

By: _____

Its: _____

By: Commonwealth Edison Company, an Illinois corporation

By: _____

Its: _____

Being all the members of the Appleton Road Committee.

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STATE OF ILLINOIS)
) SS:
COUNTY OF [illegible])

I, [illegible], a Notary Public in and for said County in the State aforesaid, do hereby certify that [illegible], [illegible] of the City of Belvidere, Illinois, and [illegible], [illegible] of the City of Belvidere, Illinois, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such [illegible] and [illegible], respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their free and voluntary act and the free and voluntary act of the City of Belvidere, Illinois, for the uses and purposes therein set forth; and the said [illegible] then and there acknowledged that he, as custodian of the corporate seal of the City of Belvidere, Illinois, did affix said seal to said instrument as h[illegible] own free and voluntary act and as the free and voluntary act of the City of Belvidere, Illinois, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, this [illegible] day of [illegible], 1990.

[illegible]
Notary Public

Commission Expires: [illegible]

[illegible]

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IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first above written.

ATTEST:

By: _____

Its: _____

BOONE COUNTY CONSERVATION DISTRICT

By: _____

Its: _____

APPLETON ROAD COMMITTEE

ATTEST:

By: _____

Its: _____

By: Belvedere Company, a Delaware corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Browning-Ferris Industries of Illinois, Inc., a Delaware corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: VP ADMINISTRATION

By: Camcar Division of Textron, Inc. a Delaware corporation

By: _____

Its: PRESIDENT

ATTEST:

By: _____

Its: _____

By: Central Rubber Company, an Illinois corporation

By: _____

Its: _____

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STATE OF ILLINOIS)
) ss.
COUNTY OF BOONE)

I, ALLEN SILVER, a Notary Public in and for said County in the State aforesaid, do hereby certify that Mitzi Kelly, secretary of the Boone County Conservation District, is personally known to me to be the same person whose name is subscribed to the foregoing instrument as such secretary, appeared before me this day in person and acknowledged that she signed and delivered the said instrument as her free and voluntary act and the free and voluntary act of Boone County Conservation District, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, this 20th day of February, 1991.

"OFFICIAL SEAL"
Allen Silver
Notary Public, State of Illinois
My Commission Expires 8/3/92

Allen Silver
Notary Public

My commission expires 8/3/92

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STATE OF _____)
) SS:
COUNTY OF _____)

I, _____, a Notary Public in and for said County in the State aforesaid, do hereby certify that _____, _____ of Camcar Division of Textron, Inc., a Delaware corporation, and _____, _____ of Textron, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such _____ and _____, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their free and voluntary act and the free and voluntary act of Textron, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, this _____ day of _____, 1990.

_____
Notary Public

Commission Expires: _____

"OFFICIAL SEAL"
JOAN T. HUTSON
Notary Public, State of Illinois
My Commission Expires 1/13/93

35

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IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first above written.

ATTEST:

By: _____

Its: _____

BOONE COUNTY CONSERVATION DISTRICT

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

APPLETON ROAD COMMITTEE

By: Belvedere Company, a Delaware corporation

By: _____

Its: _____

ATTEST:

By: _____

Eileen B. Schuler

Its: Assistant Secretary

By: Browning-Ferris Industries of Illinois, Inc., a Delaware corporation

By: _____

Gerald K. Burger

Its: Vice President

ATTEST:

By: _____

Its: _____

By: Camcar Division of Textron, Inc. a Delaware corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Central Rubber Company, an Illinois corporation

By: _____

Its: _____

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STATE OF TEXAS)
) SS:
COUNTY OF HARRIS)

I, Lara Abbott, a Notary Public in and for said County in the State aforesaid, do hereby certify that Gerald K. Burger, Vice President of Browning-Ferris Industries of Illinois, Inc., a Delaware corporation, and Eileen B. Schuler, Assistant Secretary of the Browning-Ferris Industries of Illinois, Inc., who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and Assistant Secretary, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their free and voluntary act and the free and voluntary act of the Browning-Ferris Industries of Illinois, Inc., for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, this 7th day of January, 1996.

Notary Public

Commission Expires: October 27, 1991

LARA ABBOTT
Notary Public, State of Texas
My Commission Expires Oct 27 1991

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ATTEST:

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

ATTEST:

By: [signature]

Its: Gen. Supv. Land Quality

By: Chrysler Corporation, a Delaware Corporation

By: _____

Its: _____

By: The City of Belvidere, a municipal corporation

By: _____

Its: _____

By: Commonwealth Edison Company, an Illinois corporation

By: [signature]

Its: Env. Services Manager

Being all the members of the Appleton Road Committee.

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STATE OF ILLINOIS)
) SS:
COUNTY OF [illegible])

I, [illegible], a Notary Public in and for said County in the State aforesaid, do hereby certify that [illegible], [illegible] of Commonwealth Edison Company, an Illinois corporation, and [illegible], [illegible] of Commonwealth Edison Company, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such [illegible] and [illegible], respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their free and voluntary act and the free and voluntary act of Commonwealth Edison Company, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, this [illegible] day of [illegible], 1990.

[illegible]
Notary Public

Commission Expires: [illegible]

"OFFICIAL SEAL"
MAUREEN SHANNON
Notary Public, State of Illinois
My Commission Expires June 15, 1991

THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:

Natalie A. Walsh
Katten Muchin & Zavis
525 West Monroe, Suite 1600
Chicago, Illinois 60606

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ATTEST:

By: Ellen L. Walega

Its:

ELLEN LOUISE WALEGA
Notary Public, Wayne County, MI
My Commission Expires Oct 1, 1990

By: Chrysler ~~Motors~~ (U.S.) Corporation, a Delaware corporation

By: Lynn J. Buhl

Its: Staff Counsel

ATTEST:

By: _____

Its: _____

By: The City of Belvidere, a municipal corporation

By: _____

Its: _____

ATTEST:

By: _____

Its: _____

By: Commonwealth Edison Company, a _____ corporation

By: _____

Its: _____

Being all the members of the Appleton Road Committee.

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EXHIBIT A

Legal Description of the Property

Parcel I

Parcel 1: Lot 4 in Assessor's Survey of the Southeast Quarter of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, extending to the center of the Kishwaukee River and to the center of Clines Ford Road.

Parcel 2: Lot 2 of Assessor's Survey of the Southeast Quarter of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian as recorded in Book 33 of Deeds, Page 632, in the Recorder's Office of Boone County, Illinois, excepting from said Lot 2, the North 28.4 rods thereof, and also excepting from said Lot 2 the following: Beginning at a point in the East line of said Lot 2, 28.4 rods South of the Northeast corner of said lot; thence West, parallel with the North line of said Lot 30 rods to an iron stake; thence South, parallel with said East lot line, 26.68 rods to an iron stake; thence East, parallel with said North lot line, 30 rods to the East line of said lot; thence North along said East lot line, 26.68 rods to the place of beginning.

Parcel 3: A. All that part of the following lot, piece or parcel of land which lies North of the Kishwaukee River, to-wit: Commencing at the Southeast corner of the West Half of the Southeast Quarter of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, and running thence West 63 rods; thence Northerly 64 rods; thence at right angles West 13 rods; to the West line of said Quarter Section; thence North on the Quarter Section line 68 rods to a point 28 rods South of the center of said Section; thence East on a line parallel with the Quarter Section line 80 rods to the East line of said West Half of the Southeast Quarter of said Section; thence South on said East line 132 rods to the place of beginning.

B. Also beginning at a point in the center of the Kishwaukee River 13 rods East of the West line of the Southeast Quarter of Section 27, Township and Range aforesaid; thence South to a stake which is situated 13 rods East of the Quarter Section line and 67 rods 11½ feet North of the Southerly line of said Quarter Section; thence Easterly North 83 degrees 15 minutes East, a distance of 80 rods; thence South 79 degrees 45 minutes East 32 rods; thence South 62 degrees 45 minutes East 24 rods 7 feet; thence at right angles to last direction to the center of said river; thence along the center of said river to the place of beginning.

C. Also beginning at a point 64 rods North of the South line of said Quarter Section and 13 rods East of the West line of said Quarter Section; thence West 13 rods to said West line; thence North on said West line of said Quarter Section to the center of the Kishwaukee River; thence by the center of said river to a point directly North of the place of beginning; thence South to the place of beginning.

D. Also commencing at a point on the one-eighth Section line 14 chains and 83 links South of the Northwest corner of the East Half of the Southeast Quarter of Section 27, Township and Range aforesaid; thence South 82 degrees 15 minutes East 6 chains and 13 links to a stake; thence South 88 3/4 degrees East 3 chains 82 links to a stake; thence South 42½ degrees East 5 chains and 87 links to a stake; thence South 80 links;

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(Continued)

thence North 88 degrees West 1 chain to a stake; thence North 1 chain 25 links; thence North 58 3/4 degrees West 12 chains and 63 links to a stake in the one-eighth Section line; thence North on said line 2 chains 80 links to the place of beginning.

E. Also that part of the East Half of the Southeast Quarter of Section 27, Township and Range aforesaid; beginning at a point where the center line of the Clines Ford Road and the new road running on or through said East Half intersect; thence North 89 degrees West 2.66 chains; thence North 80 links; thence North 43 degrees 10 minutes West 5 chains and 57 links; thence South 60 degrees 30 minutes East 7 chains and 33 links to the center of the new road; thence South .06 minutes East along the center of said road to the place of beginning, all in Boone County, Illinois. **

Parcel II

Tract I: That part of Assessor's Survey of the Northeast Quarter of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, as platted and recorded in the Recorder's Office of Boone County, Illinois, in Book 33 of Deeds, on page 541, described as follows: Lots 11 and 12; Lot 8, except the following: Beginning at the Southwest corner of the Northeast Quarter of said Section 27, and running thence North 11.27 chains, along the West line of said Quarter Section, to a point of beginning; thence North, along said Quarter Section line, 100 feet; thence South 79 degrees 20 minutes East for a distance of 67 feet; thence North 76 degrees 46 minutes East 82 feet; thence South 180 feet; thence North 79 degrees 20 minutes West a distance of 100 feet to the point of beginning.

That part of Lot 7, described as follows: Beginning at the Southwest corner of said Lot 7, and running thence North along said West line of the Northeast Quarter of Section 27 a distance of 222.8 feet to an iron stake; thence North 71 degrees 39 minutes East, a distance of 257.25 feet to an iron stake; thence South 84 degrees 10 minutes East a distance of 520.3 feet to an iron stake; thence South 0 degrees 16 minutes East a distance of 388.8 feet to the South line of said Lot 7; thence Northwesterly along the Southerly line of said Lot 7, a distance of 776.8 feet to the place of beginning.

That part of Lot 9, described as follows: Commencing on the West line of the East Half of the Northeast Quarter of said Section 27, at a point 36 rods North of the Southwest corner of the East Half of said Quarter Section; running thence East 58 rods, more or less to the center of the road running North and South through said Quarter Section; thence North, in the center of the road 1 rod; thence West 58 rods, more or less, to said West line of the East Half of said Quarter Section; thence South 1 rod to the place of beginning; (said Tract being also sometimes described as the South 1 rod of the North 2 rods of Lot 9 of said Assessor's Survey).

Tract II: That part of Assessor's Survey of the Southeast Quarter of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian as platted and recorded in the Recorder's Office of Boone County, Illinois, in Book 33 of Deeds, on page 632, described as follows:

Lot 3, and the North 28.4 rods of Lot 2, excepting from the North 28.4 rods of said Lot 2, the following tract: Beginning at a point in the East line of said Lot 2, 20.4 rods South of the Northeast corner of said Lot; thence West parallel with the North line of said Lot 20 rods to an iron stake; thence South parallel with said East lot line 8 rods to an iron stake; thence South parallel with said East lot line 8 rods to an iron stake; thence East parallel with said North lot line 20 rods to a point in the East line of said Lot; thence North along last lot line 8 rods to the place of beginning; All situated in Boone County, State of Illinois.

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PARCEL III

Parcel A

Part of Lot 3 as designated upon the plat of Assessor's Survey of the Northeast Quarter of Section Twenty-seven, Township Forty-four North, Range Three East of the 3rd Principal Meridian, the plat of which is recorded in Book 33 of Deeds on page 541 in the Recorder's Office of Boone County, Illinois, bounded and described as follows, to-wit: Commencing at a point in the North line of the Northeast Quarter of said Section, which bears North 89 -59'-24" East, 514.80 feet (31.2 rods) from the Northwest corner of the Northeast Quarter of said Section; thence South 01 -02'-24" West, parallel with the West line of the Northeast Quarter of said Section, 665.55 feet to the Southerly line of said Lot 3 and the point of beginning for the following described parcel; thence North 01 -02'-24" East, parallel with the West line of the Northeast Quarter of said Section, 86.73 feet to its intersection with the Westerly production of the South line of Lot 1 as designated upon said Plat of Assessor's Survey as aforesaid; thence South 89 -58'-27" East, along the Westerly production of the South line of said Lot 1, a distance of 805.37 feet to the Southwest corner of said Lot 1; thence South 01 -01'-12" West, along the East line of said Lot 3, a distance of 248.28 feet to the Southeast corner of said Lot 3; thence North 78 -35'-42" West along the Southerly line of said Lot 3, a distance of 818.69 feet to the point of beginning. Situated in Boone County, Illinois.

Parcel B:

Part of the Northeast Quarter (¼) of Section Twenty-seven (27), Township Forty-four (44) North, Range Three (3) East of the Third (3rd) Principal Meridian, described as follows, to-wit: The Southerly 85.0 feet in width of the following described tract: Beginning at a point in the North line of the Northeast Quarter of said Section, 31.2 rods East of the Northwest corner of the Northeast Quarter of said Section; thence South 40.4 rods; thence North 79 West, 31.6 rods to the West line of the Northeast Quarter of said Section; thence North along the West line of the Northeast Quarter of said Section to the Northwest corner of the Northeast Quarter of said Section; thence East, along the North line of the Northeast Quarter of said Section, 31.2 rods to the point of beginning. The Northerly line of said 85.0 foot wide parcel being 85.0 feet perpendicularly distant Northerly from and parallel with the Southerly line of the previously described tract. Situated in Boone County, Illinois.

Tract C:

Tract C as designated upon the Plat of Survey of part of the Southeast Quarter (¼) of Section Twenty-two (22) and part of the Northeast Quarter (¼) of Section Twenty-seven (27) all in Township Forty-four (44) North, Range Three (3) East of the Third (3rd) Principal Meridian, the plat of which is recorded as Document No. 2910 in the Recorder's Office of Boone County, Illinois, situated in Boone County, Illinois.

Tract D:

Tract D as designated upon the Plat of Survey of part of the Southeast Quarter (¼) of Section Twenty-two (22) and part of the Northeast Quarter (¼) of Section Twenty-seven (27) all in Township Forty-four (44) North, Range Three (3) East of the Third (3rd) Principal Meridian, the plat of which is recorded as Document No. 2910 in the Recorder's Office of Boone County, Illinois. Situated in Boone County, Illinois.

Tract E

Tract E as designated upon the Plat of Survey of part of the Southeast Quarter (¼) of Section Twenty-two (22) and part of the Northeast Quarter (¼) of Section Twenty-seven (27) all in Township Forty-four (44) North, Range Three (3) East of the Third (3rd) Principal Meridian, the plat of which is recorded as Document No. 2910 in the Recorder's Office of Boone County, Illinois. Situated in Boone County, Illinois.

Tract F:

Tract F, as designated upon the Plat of Survey of part of the Southeast Quarter (¼) of Section Twenty-two (22) and part of the Northeast Quarter (¼) of Section Twenty-seven (27) all in Township Forty-four (44) North, Range Three (3) East of the Third (3rd) Principal Meridian, the plat of which is recorded as Document No. 2910 in the Recorder's Office of Boone County, Illinois. Situated in Boone County, Illinois.

Landfill Parcel:

A part of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, in Boone County, Illinois, described as follows: Beginning at a point in the North line of the Northwest Quarter of said Section 587.00 feet East from the Northwest corner of said Section; thence along an old fence line as follows: South 683.00 feet to a point, thence South 40 degrees 00 minutes West 77.00 feet to a point; thence North 85 degrees 00 minutes West 172.00 feet to a point; thence South 22 degrees 45 minutes East 1384.00 feet to a point, thence South 38 degrees 00 minutes East 61.00 feet to a point; thence South 125.00 feet to the center line of the Kishwaukee River, running thence Southeasterly along the center line of said river as follows South 68 degrees 40 minutes East 212.00 feet to a point which is 1522.62 feet West of the East line of the West Half of Section 27 and 37.50 feet North of an iron stake set on the South bank of the Kishwaukee River 3026.70 feet North of the South line of said Section; thence South 68 degrees 00 minutes East 286.00 feet to a point, thence South 43 degrees 45 minutes East 548.00 feet to a point; thence South 16 degrees 30 minutes East 160.00 feet to a point; thence South 10 degrees 00 minutes East 280.00 feet to a point, thence South 21 degrees 00 minutes East 320.00 feet to a point, thence South 42 degrees 28 minutes East 568.00 feet to a point; thence South 65 degrees 00 minutes East 319.00 feet to the point of intersection of said center line of the Kishwaukee River and the East line of the aforesaid West Half of Section 27; running thence North along said East line 4029.00 feet to an iron stake marking the Northeast corner of said West Half of Section 27; running thence West along the North line of said Section 2053.00 feet to the place of beginning. (Excepting therefrom that part thereof described in Document recorded in Boone County, Illinois, in Book 102, Page 9 and also excepting a parcel of 1 acre in the Northeast corner of the West Half of Section 27 which is described as the North 231 feet of the East 188.57 feet of the West Half of Section 27). Situated in Boone County, Illinois.

ALSO beginning at the Southwest Corner of the Northeast Quarter of Section Twenty-seven (27) Township Forty-four (44) North, Range Three (3) East of the Third Principal Meridian, North Eleven and twenty-seven hundredths (11.27) chains along the West line of said quarter section to a point of beginning; thence North along said quarter section line one hundred (100) feet thence South Seventy-nine (79) degrees, twenty (20) minutes East for a distance of Sixty-seven (67) feet, thence North Seventy-six (76) degrees, forty-six (46) minutes East Eighty-two (82) feet, thence South One Hundred and eighty (180) feet, thence North Seventy-nine (79) degrees and Twenty (20) minutes West a distance of One Hundred (100) feet to the point of beginning. Situated in Boone County, Illinois.

Northwest Parcel:

Part of Tract E as designated upon the Plat of Survey of part of the Southeast Quarter (¼) of Section Twenty-two (22) and part of the Northeast Quarter (¼) of Section Twenty-seven (27) all in Township Forty-four (44) North, Range Three (3) East of the Third (3rd) Principal Meridian, the plat of which is recorded as Document No. 2910 in the Recorder's Office of Boone County, Illinois, bounded and described as follows, to-wit:

Beginning at the Northwest corner of said Tract E, thence South 78 -35'-41" East, along the North line of said Tract E, 150.00 feet; thence South 51 -13'-21" West, 192.10 feet to a point in the West line of said Tract E which bears South 01 -02'-24" West, 150.00 feet from the point of beginning, thence North 01 -02'-24" East, along the West line of said Tract E, 150.00 feet to the point of beginning. Situated in Boone County, Illinois.

Roadway Parcel:

That part of Lot 7 of Assessor's Survey of the Northeast Quarter of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, as platted and recorded in the Recorder's Office of Boone County, Illinois, in Book 33 of Deeds, on page 541, described as follows. Beginning at the Southwest corner of said Lot 7, and running thence North along said West line of the Northeast Quarter of Section 27 a distance of 222.8 feet to an iron stake, thence North 71 degrees 39 minutes East, a distance of 257.25 feet to an iron stake; thence South 84 degrees 10 minutes East a distance of 520.3 feet to an iron stake; thence South 0 degrees 16 minutes East a distance of 386.8 feet to the South line of said Lot 7; thence Northwesterly along the Southerly line of said Lot 7, a distance of 776.8 feet to the place of beginning. Situated in Boone County, Illinois.

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Parcel IV

Part of Lot 3 as designated upon the Plat of Assessors Survey of the Northeast Quarter of Section 27, Township 44 North, Range 3 East of the 3rd P.M., the Plat of which is recorded in Book 33 of Deeds on page 541 in the Recorder's Office of Boone County, Illinois, bounded and described as follows to wit: Commencing at a point in the North line of the Northeast Quarter of said Section, which bears North 89°-59'-24" East, 514.80 feet (31.2 rods) from the Northwest corner of the Northeast Quarter of said Section; thence Soth 01°-02'-24" West, parallel with the West line of the Northeast Quarter of said Section, 665.55 feet to the Southerly line of said Lot 3 and the point of beginning for the following described parcel; thence North 01°-02'-24" East, parallel with the West line of the Northeast Quarter of said Section, 86.73 feet to its intersection with the Westerly production of the South line of Lot 1 as designated upon siad Plat of Assessors Survey as aforesaid; thence South 89°-58'-27" East, along the Westerly production of the South line of said Lot 1, a distance of 805.37 feet to the Southwest corner of said Lot 1; thence South 01°-01'-12" West, along the East line of said Lot 3, a distance of 248.28 feet to the Sotheast corner of said Lot 3; thence North 78°-35'-42" West, along the Southerly line of said Lot 3, a distance of 818.69 feet to the point of beginning, situated in Boone County, Illinois.

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Parcel V

PARCEL 1:

Tracts C, D, E, F, and G according to the Plat of Survey of part of the Southeast Quarter of Section 22, Township 44 North, Range 3, East of the Third Principal Meridian and part of the Northeast Quarter of Section 27, Township 44 North, Range 3, East of the Third Principal Meridian, according to the Plat thereof recorded March 16, 1965 as Document No. 2910 in Boone County, Illinois, excepting from aforesaid tract C the following: A part of Lot 6 as designated upon the Plat of Assessor's Survey of the Northeast Quarter of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, bounded and described as follows, to-wit: Beginning at a point in the center of the public roadway known as Sunset Avenue, which point is 120.08 feet South of the North line of said Lot 6; thence South 00 degrees 45 minutes 31 seconds West along the center of said road, a distance of 130.00 feet; thence North 89 degrees 23 minutes 02 seconds West, a distance of 173.00 feet; thence North 00 degrees 45 minutes 31 seconds East, parallel with the centerline of said road, a distance of 130.00 feet; thence South 89 degrees 23 minutes 02 seconds East, a distance of 173.00 feet to the place of beginning, situated in Boone County, State of Illinois.

PARCEL 2:

Lot Nine (9) of Plat of Assessor's Survey of the Northeast Quarter of Section 27, Township 44 North, Range 3, East of the Third Principal Meridian, as recorded in Book 33 of Deeds, page 541, in Boone County, Illinois, Excepting therefrom the South 1 rod of the North 2 rods of said lot, situated in Boone County, State of Illinois.

PARCEL 3:

Lot Ten (10) of Plat of Assessor's Survey of the Northeast Quarter of Section 27, Township 44 North, Range 3, East of the Third Principal Meridian, as recorded in Book 33 of Deeds, page 541, in Boone County, Illinois, Excepting therefrom the following described premises to-wit: A part of the Northeast Quarter (¼) of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, bounded and described as follows, to-wit: Beginning at a point in the South line of said Quarter (¼) Section, which is 363.00 feet West of the Southeast corner of said Quarter (¼) Section, which point is in the center of Sunset Avenue, thence North along the center of said Sunset Avenue a distance of 100.00 feet, thence West parallel with the South line of said Quarter (¼) Section a distance of 200.00 feet, thence South parallel with the center of Sunset Avenue a distance of 100.00 feet to the South line of said Quarter (¼) Section, thence East along the South line of said Quarter (¼) Section a distance of 200.00 feet, to the place of beginning, subject to the rights of the public over that portion lying within the right of way of said Sunset Avenue, situated in Boone County, State of Illinois.

PARCEL 4:

Lot Thirteen (13) of Plat of Assessor's Survey of the Northeast Quarter of Section 27, Township 44 North, Range 3, East of the Third Principal Meridian, as recorded in Book 33 of Deeds, page 541, situated in Boone County, State of Illinois.

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Parcel VI

Part of the West Half of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, more particularly described as follows: All that part of Parcel No. 1 (described below) lying Northeasterly of the following described line: Beginning at a point in the West line of said Section, which bears North 00 degrees, 00 minutes, 00 seconds, East, 4082.64 feet from the Southwest corner of said Section, thence South 90 degrees, 00 minutes, 00 seconds East, 175.0 feet; thence South 23 degrees, 26 minutes, 43 seconds, East, 535.0 feet; thence South 31 degrees, 58 minutes, 35 seconds, East 1400.0 feet to a point in a line 1129.26 feet East from and parallel with the West line of said Section, said point being 2404.24 feet North from the South line of said Section and the termination of said line.

PARCEL NO. 1:

Beginning at the Southwest corner of Section 27, Township 44 North, Range 3 East of the Third Principal Meridian, Boone County, Illinois; thence Northerly along the West line of said Section 80.04 chains to the Northwest corner of said Section 27; thence South 82 degrees, 30 minutes East along the North line of said Section 587 feet to an iron stake in the fence corner being the Northwest corner of Barney's land; running thence along an old fence line as follows: South 683.0 feet to a point; thence South 40 degrees, 0 minutes West 77 feet to a point; thence North 85 degrees, 0 minutes West 172 feet to a point, thence South 22 degrees, 45 minutes East 1364.00 feet to a point; thence South 38 degrees, 0 minutes East 61.00 feet to a point; thence South 125 feet to the center line of the Kishwaukee River; running thence Southeasterly along the center line of said river South 68 degrees, 40 minutes, East 212 feet to a point which said point is 1522.62 feet West of the East line of the West Half of said Section 27; thence South and parallel with the East line of said West Half of said Section 27, 3064.20 feet to the South line of said Section; thence West along the South line of said Section to the place of beginning. Situated in Boone County, Illinois.

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EXHIBIT B

Legal Description of the Restricted Tract

From the Point of Beginning for the location of the site security fence for the Belvidere Municipal No. 1 Landfill, being located approximately N 59°11'30" E 221.37'±, S 47°24'34" E 508.77'±, S 67°41'21" E 935.96', S 53°56'55" E 334.16', N 74°45'11" E 137.22', S 61°13'14" E 709.55', S 55°27'29" E 408.17', S 89°32'51" E 365.57', S 00°00'00" W 976.11' from a found chiseled "X" in a bridge deck located South of Lincoln Avenue in the S.E. corner of the S.E. 1/4 of Section 27, which is also the southern most corner of the site security fence, the security fence runs thence N 50°03'21" W 1260.53'± to a point thence, N 39°01'00" E 538.42'± to a point thence, N 02°07'23" W 505.98'± to a point thence, N 84°46'39" E 366.30'± to a point thence, N 49°40'43" E 751.69'± to a point thence, N 74°31'00" E 60.63'± to a point then continuing S 40°15'49" E 112.43'± to a point thence, S 00°20'28" 296.03'± to a point thence S 34°04'30" E 144.89'± to a point thence, S 00°10'12" W 349.02'± to a point thence, S 07°45'20" E 219.23'± to a point thence, S 24°26'06" W 242.39'± to a point thence, S 04°27'02" E 215.68'± to a point thence, S 48°17'54" E 217.35'± to a point and continuing N 86°33'50" E 222.05'± to a point thence, S 05°00'52" E 139.73'± to a point thence, N 87°58'55" E 81.18'± to a point thence, S 02°22'08" E 32.75'± to a point being the northern side of the entrance gate to the site, thence, S 04°49'23" E 32.00'± to a point being the southern side of the entrance gate to the site, thence, S 03°50'10" E 217.11'± to a point thence, N 88°21'49" W 558.74'± to a point thence, S 59°11'30" W 454.39'± to the Point of Beginning.

MONITORING WELL LOCATIONS AT THE BELVIDERE MUNICIPAL NO. 1 LANDFILL

ALL THE MONITORING WELL LOCATIONS LISTED BELOW ARE ALL ORIENTATED TO THE POINT OF BEGINNING THAT IS DESCRIBED IN THE DESCRIPTION ABOVE.

Monitoring well #1 is located N 43°29'39" E 2091.65'± from the Point of Beginning.

Monitoring well #2 is located N 29°53'03" E 1759.43'± from the Point of Beginning.

Monitoring well #X1 is located N 25°23'52" E 2553.34'± from the Point of Beginning.

Monitoring well #5 is located S 87°51'35" W 87.30'± from the Point of Beginning.

Monitoring well #23 is located N 55°27'22" W 1082.41'± from the Point of Beginning.

Monitoring well #3 is located N 57°18'16" W 484.12'± from the Point of Beginning.

Monitoring well #26 is located N 52°41'01" W 804.33'± from the Point of Beginning.

Monitoring well #25 is located N 52°31'20" W 782.70'± from the Point of Beginning.

Monitoring well #24 is located N 52°39'14" W 760.28'± from the Point of Beginning.

Monitoring well #4 is located N 29°29'01" W 1485.25'± from the Point of Beginning.

ALL THE BEARINGS LISTED ABOVE ARE ASSUMED AND BASED ON THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 27 BEING NORTH 0 DEGREES 00 MINUTES EAST.

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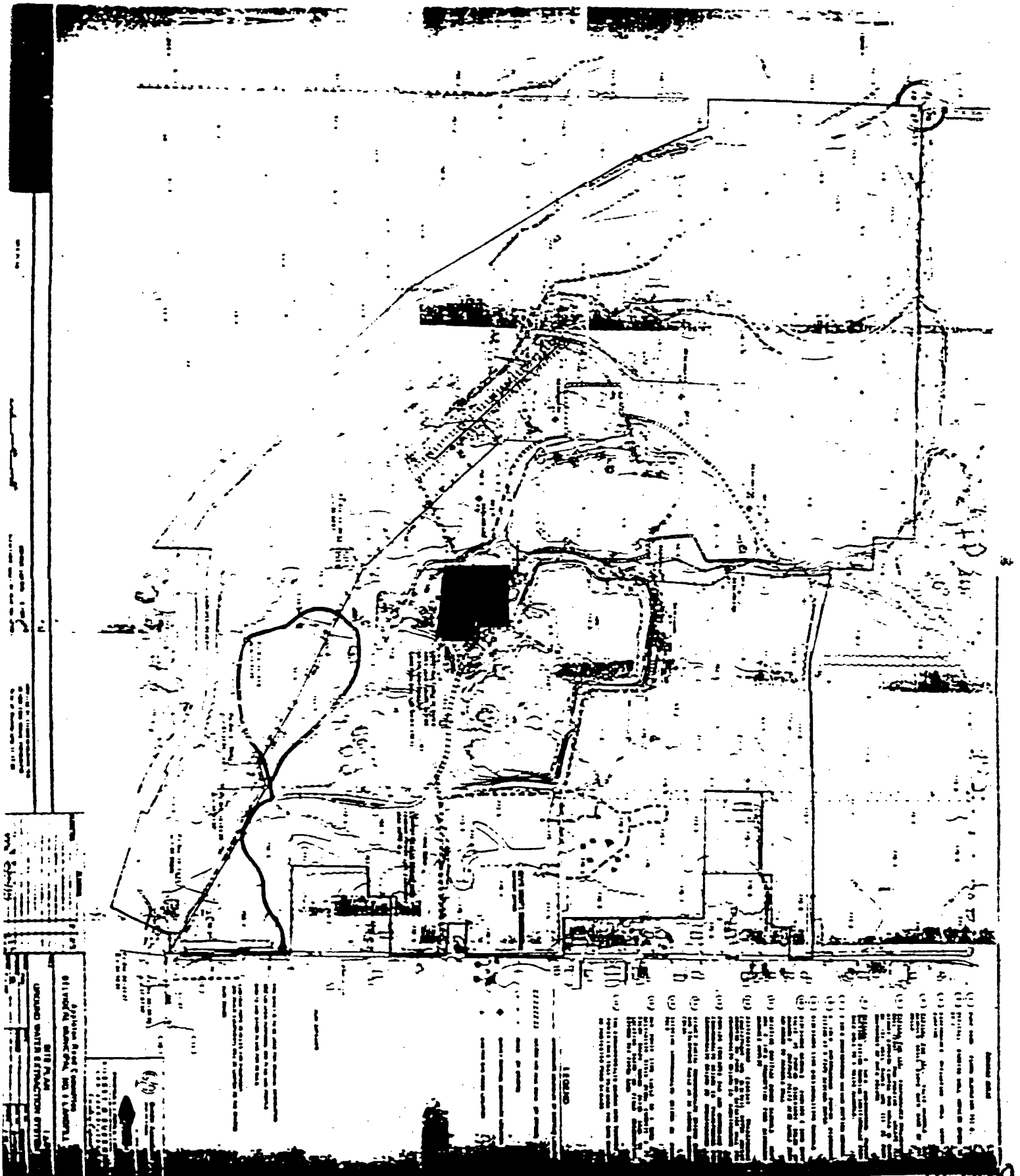
EXHIBIT C

Map of the Restricted Tract



ATTACHMENT B

(b) Any building requiring more than four metered service will be allowed only one master service connection with a separate curb stop and curb box located six feet from the property line and

(1) A single master meter for the entire building; or

(2) Multiple meters for each unit within the building.

In either case, the following criteria must be met to allow access and servicing of the meter or meters: A common utility/meter room must be provided in which all meters are located. The room must have a lockable, permanent outside access doorway at least 32 inches wide by six feet eight inches high. This room must be accessible to the water department at all times and two keys for entry must be furnished to the department prior to final inspection. The room will have exterior grade switches and receptacles and light sockets. There must be a minimum of one light located overhead at the meter locations. The light switch must be located inside the doorway immediately adjacent to the door. The room must be heated to maintain a temperature of at least 50 degrees Fahrenheit to prevent freezing and must have a floor drain. All meters in the room will have lockable ¼ turn ball valves located before and after the meter. In addition, a lockable ¼ turn master valve must be installed on the main service line. All valves must be permanently tagged identifying the unit within the building it serves. Each meter must also have a permanent rigid ½-inch diameter conduit with 12-inch long flexible end run from the meter head to the outside wall. Each conduit will be permanently labeled on the outside of the building above the conduit indicating what unit is so served. Shop drawings showing the size, location, material type and configuration of all manifolds must be furnished and approved by the department of public works prior to installation. Manifold must be no less than 12 inches nor more than 48 inches above the floor of the utility/meter room.
(Code 1982, § 50.09; Ord. No. 103G, § 1, 2-4-97)

Sec. 114-159. Emergency water conservation regulations.

During any period when the overall demand on the city water supply system is so great as to endanger the public health, safety and welfare, the mayor is authorized to declare an emergency and to issue emergency water conservation regulations, limiting or prohibiting use of water from the city water mains for the sprinkling, watering, or irrigation of shrubbery, trees, lawns, grass, ground covers, plants, vines, gardens, vegetables, flowers, or for any other purpose.
(Code 1982, § 50.10)

Sec. 114-160. Connection to public water supply.

(a) It shall be unlawful for any person, firm, or corporation to construct a private well within the corporate limits of the city.

(b) Any premises within the city must connect to the public water supply. However, any premises connected to a private well may continue to use the well for the period of time that the well operates properly.

(c) It shall be unlawful for any person to alter, rebuild, or restore any portion of a private well within the corporation limits of the city. This includes any portion of a system from building line through the complete system which may not be functioning properly due to deterioration or structural failure. At such time, the well must be abandoned and capped in accordance with state requirements.

(d) All existing private wells within the corporation limits must be registered with the city water department within one year of passage of this section.
(Ord. No. 102G, § 1, 2-3-97)

Secs. 114-161—114-180. Reserved.

DIVISION 2. SERVICE PIPES

Sec. 114-181. Installation.

All service pipes from the shutoff box to the premises served shall be installed and maintained by, and at the cost of, the owner or occupant of the property to be served. All connections shall be made under the supervision of the direc-

ATTACHMENT C

TABLE 11

COMPLIANCE CRITERIA (MW-6 AND MW-7 FOR TARGET COMPOUND FOR TERMINATION OF BARRIER EXTRACTION SYSTEM

Target Compound	Alternate Criteria (µg/L)	Remarks
Benzene	5	MCL* and Method Detection Limit
Ethylbenzene	700	MCL
Toluene	2000	MCL
Xylene	10000	MCL
Naphthalene	10	MCL not established, 10 µg/L is Method Detection Limit
2,4-dimethylphenol	10	MCL not established, 10 µg/L is Method Detection Limit
Arsenic	50	MCL
Additional Compounds (First Year)		
**PCBs (each of 1254	1.0	Method Detection Limit
**Vinyl Chloride	2	MCL

* Safe Drinking Water Act Maximum Contaminant Level.

** Sampling and analysis for this parameter may be discontinued after the first year.

ATTACHMENT D

EPA To Review
Belvidere Municipal Landfill #1 Superfund Site
Belvidere, Illinois

U.S. Environmental Protection Agency is conducting a five-year review of the Belvidere Municipal Landfill #1 Superfund site. The Superfund law requires regular reviews of sites (at lease every five years) where the cleanup is complete but hazardous waste remains managed on site. These reviews are done to ensure that the cleanup continues to protect human health and the environment.

Site investigations conducted in 1982 found that a drum disposal area was contaminated with PCBs. The ground water (underground water supplies) was also found to be contaminated with volatile organic compounds, polyaromatic hydrocarbons, PCBs, metals and vinyl chloride.

Originally, EPA and Illinois EPA selected several cleanup actions for the site. They included: installation of a protective cap, soil remediation, ground water extraction and treatment via a plume barrier system, monitoring, access restriction and flood protection restriction to assist in evaluating the effectiveness of the cleanup. There are also deed restrictions on drinking the ground water. EPA and Illinois EPA have made modifications to the original cleanup plan such as the shutdown of the pump and treat system, revisions to the ground water monitoring and sampling plan, and requiring a monitored natural attenuation study as part of the modified cleanup.

The five-year review will:
- evaluate the implementation and performance of the original cleanup;
- evaluate the effectiveness of the modifications;
- ensure that they continue to protect human health and the environment; and
- find ways to increase the efficiency of the cleanup.

This is the second five-year review for Belvidere Municipal Landfill #1. The first was done in 2000. The five-year review report, which will be available by fall 2005, will detail the site's progress. Citizens neighboring the site will be asked to complete an interview questionnaire, which will be distributed during the review period.

Site-related documents are available for review at:
Ida Public Library
320 North State Road
Belvidere, IL 61008

For additional information contact:
Janet Pope
EPA Community Involvement Coordinator
1-800-621-8431 x 30628
9:30 a.m. to 4:30 p.m. weekdays
pope.janet@cpa.gov

ATTACHMENT E

List of Documents Reviewed

Closeout Report Belvidere Municipal #1 Landfill Site, June 10, 1992

Consent Decree and Statement of Work Belvidere Municipal #1 Landfill Site December 2, 1988

Correspondence between the City and IEPA November 17-December 19, 2000

Five Year Review Report Belvidere Municipal #1 Landfill Site June 27, 1995

Five Year Review Report Belvidere Municipal #1 Landfill Site September 28, 2000

Groundwater Contaminant Trend Analysis and Natural Attenuation Evaluation Report Belvidere Municipal #1 Landfill July 2002

Operation and Maintenance Plan Belvidere Municipal #1 Landfill Site June 5, 1992

Operation and Maintenance Tri-Annual and Annual Inspection Reports Belvidere Municipal #1 Landfill November 2000 -July 2005

Record of Decision Belvidere Municipal #1 Landfill Site, June 29, 1988

Remedial Action Report Belvidere Municipal #1 Landfill May 12, 1992

Remedial Design Plan Belvidere Municipal #1 Landfill Site February 16, 1990

Remedial Investigation Report Belvidere Municipal #1 Landfill Site March 31,1988

Restrictive Covenant Agreement between BCCD and ARC; June 1990

ATTACHMENT F

Applicable or Relevant and Appropriate Requirements (ARARs)

RCRA Subtitle C (40 CFR 264.310(a)) performance requirements for landfill covers

RCRA Subtitle F (40 CFR 264.95) for releases from solid waste management units

TSCA (40 CFR 761.60) for disposal of PCB-contaminated material in excess of 50 parts per million

Clean Water Act National Pollutant Discharge Elimination System requirements for surface water discharge or Pre-treatment requirements for discharge to a publicly owned treatment works (POTW). The latter discharge option was included in design.

U.S. EPA policy on construction in floodplains and filling of wetlands.

Endangered Species Act (for Indiana Bat habitat) (for Illinois habitat)